

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawing includes change to FIG. 1.

Further, the annotated sheet of drawing showing change marked in circle.

Attachments: Replacement sheet and Annotated sheet showing change.

REMARKS

Claims 1-10 and 13-24 remain pending in the application and were examined in the most recent action. Claims 11 and 12 are canceled, without prejudice. Applicant respectfully requests reconsideration and allowance of the application in view of the foregoing amendments and the following remarks.

Amendment to the Specification

Paragraph [0018] of the specification has been amended to change the legend “the current source 238” to “a current source 238” where it is first introduced. Support for the correction is found in FIG. 4. No new matter has been introduced.

Multiple amendments have been made in Paragraph [0022] of the specification to include “the” before “modifiable buffer circuit 100” (See ll. 2); an Arabic number “100” has been added in connection to the “modifiable buffer circuit” (See ll. 10 and 13); another Arabic number “312” has been added in connection to the “transducer” (See ll. 5); and finally, the legend “modifiable” has been added before “buffer circuit” (See ll. 13). Supports for the corrections are found in FIGs. 5 and 6, for example. No new matter has been introduced.

Amendment to the Drawing

FIG. 1 has been amended to substitute “114” for 104” in connection to the plurality of inputs. Support for the correction is found in paragraph [0015] of the specification. Accordingly, this amendment does not introduce new matter.

Double Patenting

Claims 1-9, 11, 12 and 14-16 were provisionally rejected on the ground of non-statutory obviousness-type double patenting as allegedly being unpatentable over claims 15-24 of copending Application No. 10/797,507. The applicant herewith provides a duly executed terminal disclaimer overcoming this rejection. As such, these claims are allowable as indicated in the action.

Claim Rejections – 35 U.S.C. §103

Claims 1-3, 9-12, 15, 17 and 20-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Levitt et al. (4,879,749) in view of Madaffari et al. (2002/0090102). The action further rejected Claims 4-8 and 14 under 35 U.S.C. §103(a) as being unpatentable over Levitt et al. in view of Madaffari et al. in further view of Killion (5,602,925). Applicant traverses the rejection.

Claim 1 has been amended to clarify the subject matter the applicant claims as his invention. In particular, claim 1 has been amended to clarify the structure of a transducer assembly. As recited in claim 1, among other things, the transducer assembly includes a hybrid circuit with a removable portion. One portion of the hybrid circuit is enclosed within a transducer housing with the removable portion extending outside the transducer housing. The hybrid circuit includes a filter network and a tuner for adjusting the filter network. Once a characteristic of the filter network is changed, the removal of the removable portion acoustically seals the housing.

Levitt et al. and Madaffari et al. fail to teach or suggest a hybrid circuit that has a removable portion extending outside the transducer housing and is subsequently removed permanently so that the housing is acoustically sealed after the removal of the removable portion of the hybrid circuit. Levitt et al. disclose a circuit (an AGC 58, a programmable filter 64, an EEPROM 84, switches 85 and 86) of a hearing aid is coupled to a microphone 57. The circuit is not contained in the microphone housing (See FIG. 2). There is no reason to remove the circuit in order to acoustically seal the microphone housing. The action concedes that Levitt et al. do not disclose a housing having an acoustic seal. On the other hand, Madaffari et al. disclose a microphone housing and a circuit 18 disposed within the housing. Since the circuit 18 does not require a portion extending outside the housing, there is no reason to remove the circuit either. Thus, claim 1, as amended are allowable over these references. Claims 2-10 depend directly or indirectly from claim 1 are also allowable at least for the same reasons.

Claim 20 has been amended to clarify the subject matter the applicant claims as his invention. In particular, claim 20 has been amended to clarify the structure of a substrate for a transducer assembly. In accordance with claim 20, a microphone includes,

among other things, a housing with a first molded piece and a second molded piece attached to the first molded piece and a substrate. The substrate has a first portion contained within the housing and a second portion attached to the first portion extending outside the housing.

The action concedes that Levitt et al. do not disclose a housing comprising a first molded piece having an acoustic port and a second molded piece coupled to the first molded piece. Levitt et al. and Madaffari et al. fail to teach or suggest a substrate having a first portion contained within the housing and a second portion attached to the first portion extending outside the housing. Levitt et al. disclose a circuit (an AGC 58, a programmable filter 64, an EEPROM 84, switches 85 and 86) coupled outside the microphone 57. As shown in FIG. 2, the circuit is contained in a hearing aid and is not contained in the microphone housing to form as part of the microphone 57. Madaffari et al. disclose a circuit 18 and a single molded microphone housing 40 attached to the circuit. As shown in FIG. 1, the circuit 18 does not require to have a second portion extending outside the housing 40. The action alleges that the second molded piece 42 is coupled to the first molded housing 40. The applicant disagrees. The second molded piece 42 is actually a diaphragm ring to support the diaphragm 54 and thus does not form part of an enclosure of the substrate as set forth in Claim 20. Thus, claim 20, as amended is allowable over these references. Claims 21-24 depend directly or indirectly from claim 20 are also allowable at least for the same reasons.

Allowable Subject Matter

The Action objected claim 13 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant hereby amends claim 13 to include all of the limitations of claims 11 and 12 as suggested by the examiner, thus claims 11 and 12 are canceled, without prejudice. Because claim 13 is allowable, claims 14-19 depend directly or indirectly from claim 13 are allowable at least for the same reason.

Conclusion

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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